

SpectraTime awarded a contract to develop an ultra-stable space oscillator

Neuchâtel, November 4th 2010 – SpectraTime, a company of the Orolia Group (NYSE Alternext Paris – FR0010501015 – ALORO), today announced it has received a 500k€ contract from the European Space Agency (ESA) to develop an ultra-stable quartz-controlled oscillator for space applications. The objective is to reduce the size and the consumption of quartz oscillators without loss of performance for future global positioning systems such as Galileo. Besides, this technology, which strengthens the leadership position of the company in the ultra-stable frequency sources market, will open new growth perspectives.

A new generation of ultra-stable space oscillator

"The current development and implementation of high order and bandwidth-efficient modulation schemes significantly strengthens the phase noise and stability requirements on the on-board local oscillator. At the same time, flexible payloads require some frequency agility of the local oscillators" explains Pascal Rochat, CEO of SpectraTime. The introduction of agility in converter equipment implies that complex architectures (e.g. dual conversion scheme) with multiple LO's will be used. The generation of these LO's will be using complex frequency synthesis and conversion schemes, using reference oscillators with very low phase noise and high absolute frequency stability.

An extended period while reducing cost

In addition to phase noise performance, on-board ultra-stable frequency references are required to provide extremely low sensitivity to the environment (temperature, radiation, vibration...) and low ageing, still in a compact, lightweight and power efficient package. Finally, on-board ultra-stable frequency references shall be able to meet these performance requirements over extended periods (15 years+) with high level of reliability and shall have a competitive recurrent cost. *« Beyond the reduction of weight and size, we can see from our first simulation results, considerable improvements of the performance of spatial quartz oscillators. Our efforts will be mainly concentrated on improving phase noise parameter»* explains Pascal Rochat, CEO of SpectraTime.

About SpectraTime

SpectraTime, a company of the Orolia group, is a leading designer and manufacturer of a full range of high-performance, low-cost crystal, rubidium and maser sources, smart integrated GPS or GNSS reference clocks, and clock testing systems. Its products are used in a wide variety of applications, including telecommunications, defense, navigation, instrument, broadcasting, and space. Headquartered in Switzerland, the company is a recognized leader in the industries it serves and distributes its products globally through its sales offices in Europe, Asia, and United States. <http://www.spectratime.com>

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